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| **St. Vincent and the Grenadines Pilot Programme**  **for Climate Resilience**  **Monitoring Report** |
| |  |  |  | | --- | --- | --- | | Ministry of Finance, Economic Planning and Sustainable Development |  | **August 2018** | |

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# Glossary and abbreviations

AF Additional Finance

AWE At the Water’s Edge

CCCCC Caribbean Community Climate Change Centre

CCORAL Caribbean Climate Online Risk and Adaptation Tool

CIF Climate Investment Fund

CPD Central Planning Division

EU European Union

GCCA Global Climate Change Alliance

GoSVG Government of St. Vincent and the Grenadines

IDA International Development Agency

JCCCP Japan-Caribbean Climate Change Partnership

NAP National Adaptation Plan

NAMA Nationally Appropriate Mitigation Actions

NEMO National Emergency Management Organisation

NGO Non-Governmental Organisation

NPRBA National Parks, Rivers and Beaches Authority

OECS Organisation of Eastern Caribbean States

PPCR Pilot Programme for Climate Resilience

PSIPMU Public Sector Investment Programme Management Unit

RDVRP Regional Disaster Vulnerability Reduction Project

SCF Strategic Climate Fund

SPCR Strategic Programme for Climate Resilience

SVG Saint Vincent and the Grenadines

UNDP United Nations Development Program

WB World Bank

# Highlights of PPCR Monitoring 2016

This report summarises performance on the Pilot Programme for Climate Resilience Monitoring Indicators for St. Vincent and the Grenadines in 2017. It accompanies the PPCR scorecard providing where possible explanations and context for scores. The following are the highlights of the report.

* Synergies have been built between ongoing projects in climate resilience (e.g. Japan-Caribbean Climate Change Partnership, J-CCCP, OECS Global Climate Change Alliance Climate Change Adaptation, the Global Climate Fund (GCF) and Sustainable Land Management Project) leading to more efficient use of resources.
* The process for the development of the National Climate Change Policy and Implementation Plan continues. This activity presents the best opportunity so far for establishment of a national coordination mechanism on climate change.
* Movement in the indicators slowed as several processes have been maturing. A number of indicators are nearing desired levels. Slow implementation PPCR activities has resulted in slow movement of PPCR indicator scores particularly in the areas of degree of integration of climate change into national/sector planning and capacity to mainstream climate resilience.
* Progress on Indicator one moved from an average score of 65.0 percent in 2017 to 67.5 percent in 2018.
* Progress on Indicator two moved from an average score of 59.2 percent to 67.5 percent in 2018.

# SPCR Background

The Pilot Programme for Climate Resilience (PPCR) is a US $1.2 billion funding window of the Climate Investment Funds (CIF). Using a two-phase programmatic approach, the PPCR assists national governments in integrating climate resilience into development planning across sectors and stakeholder groups. It also provides additional funding to put the plan into action, and pilot innovative public and private sector solutions to pressing climate-related risks.

The PPCR empowers countries to approach climate resilience in a programmatic manner. Moving beyond project-by-project activities that have limited potential to effect national or sector wide transformations, the PPCR programmatic approach entails a long-term, strategic arrangement of linked investment projects and activities to achieve large-scale systematic impacts, and take advantage of synergies and co-financing opportunities[[1]](#footnote-1).

Twenty eight pilot countries are involved in the PPCR; nineteen in single country programmes (Bangladesh, Bhutan, Bolivia, Cambodia, Ethiopia, Gambia, Honduras, Kyrgyz Republic, Madagascar, Malawi, Mozambique, Nepal, Niger, Philippines, Rwanda, Tajikistan, Uganda, Yemen, Zambia), and nine involved in two regional programmes (Caribbean Region: Dominica, Grenada, Haiti, Jamaica, St. Lucia, St. Vincent and the Grenadines and, Pacific Region: Papua New Guinea, Samoa, Tonga).

St. Vincent and the Grenadines’ Strategic Programme for Climate Resilience (SPCR) is being implemented as part of the Regional Disaster Vulnerability Project (RDVRP). The RDVRP was declared effective by the World Bank (WB) on September 9, 2011 to be implemented, initially, over a five (5) year period. Following the December 2013 floods disaster, additional financing (AF) of US $40.6 million (PPCR grant US $5 million, IDA 16 credit US $16.6 million and IDA Crisis Response Window credit US $19 million) was declared effective and the project was extended to December 31, 2018.

## Additional Financing – EU (AF2)

On May 21, 2015, the government of SVG (GOSVG) confirmed its intention to implement the European Union (EU) 11th European Development Fund: B-envelope allocations (post December 2013 disaster grant funding) as part of the RDVRP under a EUR 6 million (USD 6.7 million) AF2 trust fund agreement. The MOEP confirmed on November 24, 2015 that the EU grant funds would jointly co-finance activities under the project. The signing of the AF2 between the government and the Bank is tentatively scheduled for January 2017.

# Climate resilience and disaster risk reduction in St. Vincent and the Grenadines

Climate resilience and disaster risk reduction feature as integral components of St. Vincent and the Grenadines’ development as identified by the 2013-2025 National Economic and Social Development Plan. The plan emphasizes “Improving physical infrastructure, preserving the environment and building resilience to climate change” as one of five strategic goals during the period. Within this framework it outlines objectives to:

Plan for and manage use of land resources, including preserving forest areas (Ob. 4.1)

Upgrade transportation infrastructure (Ob. 4.2)

Improve capacity of response agencies and communities to mitigate disaster (Ob. 4.5)

Protect natural resources including coastal areas and biological lifeforms (Ob. 4.7)

Improve waste management (Ob. 4.8)

Explore renewable sources of energy (Ob. 4.9)

Increase public awareness on issues related to climate change (Ob. 4.11)

Aligned with these directives, several initiatives are ongoing in St. Vincent and the Grenadines to address plan objectives related to climate resilience and disaster risk reduction. The following paragraphs summarize projects and programmes which together with the Strategic Programme for Climate Resilience (SPCR) address aspects of climate resilience.

## At the Water’s Edge (AWE): Coastal Resilience in Grenada and St. Vincent and the Grenadines

A five-year project launched in 2011, the goal of at the water’s edge project was to demonstrate that govern­ments and communities of small island states can en­hance their resilience to climate change by protecting, restoring and effectively managing their marine and coastal ecosystems and strengthening local capacity for adaptation.

Small islands states contribute very little to global climate change in terms of greenhouse gas emissions. Yet, these nations are the most vulnerable to the im­pacts from climate change due to their high coastal population densities, limited land space, geographic isolation, scarce freshwater supplies and significant dependence on tourism and fisheries.

In the coastal zone, effectively addressing climate and disaster risks requires an integrated approach that looks at exposure to impacts from climate change and natural hazards—particularly weather related—and their combined effects. For the AWE project, The Nature Conservancy worked with local partners to develop an integrated vulnerability analysis with both national and local indicators. Social, economic, and ecological vulnerabilities and the interplay between them were examined. A model to examine vulnerability at a national scale was used, which took into account exposure, adaptive capacity, and sensitivity of three key social components: 1) critical infrastructure and facilities (i.e. transportation terminals, emergency response, and community facilities); 2) livelihoods (i.e. natural resource dependence and critical industry facilities such as fish processing plants and hotels); and 3) social sensitivity (number of people and houses).

At the local level the AWE project worked with local partners Grenada Fund for Conservation, Sustainable Grenadines, and Grenada Red Cross to engage communities through household surveys and Participatory 3D Mapping (P3DM) and integrate the local knowledge and perspectives of nearly 500 community members into the site level vulnerability assessments. This in effort to help communities visualize potential impacts, understand their vulnerabilities and consider future scenarios and different tradeoffs. In St. Vincent and the Grenadines a Community Action Plan for was developed Union Island as well as participatory mapping.

## Japan-Caribbean Climate Change Partnership (J-CCCP)

The Japan-Caribbean Climate Change Partnership (J-CCCP) is a regional climate change initiative pioneered in eight Caribbean territories including Belize, Suriname and St. Vincent and the Grenadines. The initiative is designed to strengthen the capacity of countries in the Caribbean to invest in climate change mitigation and adaptation technologies. The initiative is implemented by the United Nations Development Programme (UNDP) with financial and technical support from the Government of Japan.

Expected outcomes are:

1. Nationally Appropriate Mitigation Actions (NAMAs) and Nation Adaptation Plans (NAPs) to promote alternative low-emission and climate-resilient technologies
2. Adoption and implementation of mitigation and adaptation technologies
3. Strengthened knowledge networks through shared South-South and North-South experiences

Official launch for the Japan-Caribbean Climate Change Partnership (J-CCCP) was held in January 2016 and an in-country launch held in St. Vincent and the Grenadines in June of the same year. In St. Vincent and the Grenadines the project is expected to focus on development of Nationally Appropriate Mitigation Actions (NAMA) for the transport sector and development of a National Adaptation Plan (NAP), in addition to implementation of mitigation and adaptation technologies.

J-CCCP began preparatory work for development of the NAMA and the NAP including exploring synergies with stakeholders and the World-Bank supported Regional Disaster Vulnerability Reduction Project (RDVRP). There is currently no formal coordination mechanism related to climate change in St. Vincent and the Grenadines. (Steering committees are established on a project by project basis and each of these committees has a similar membership). J-CCCP therefore set out to address development of a national climate change coordination mechanism as part of the NAP development process.

In addition to NAP and NAMA development J-CCCP will fund the implementation of mitigation and adaptation technologies. To date five projects have been approved (and several pending approval) which cover over forty (40) sites. Mitigation and adaptation technologies to be implemented include: rehabilitation of an irrigation system in Langley park for the benefit of 75 farmers; installation of solar water pumps and water harvesting methods in 8 demonstration plots in agricultural districts; development of two (2) bio-gas systems on livestock farms; establishment of 800ft of footpath in Fair Hall and Barrouallie to increase community resilience to reduce water run off and installation of greenhouses and water harvesting systems in three rural secondary schools. Adaptation projects will also include provision of water storage tanks

## OECS/GCCA Project on Climate Change Adaptation and Sustainable Land Management

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The Climate Change Adaptation and Sustainable Land Management project is an EU-funded initiative to address issues of sustainable land management in the OECS region. The specific objective of the project is to improve the region’s natural resource-base resilience to the impacts of climate change through effective and sustainable land management frameworks and practices and through specific adaptation pilot projects focused on physical infrastructure and ecosystems.

In St. Vincent the project provided beach profiling equipment to the National Parks, Beaches and Rivers Authority (NPBRA), soil testing kits to the Soil Conservation Unit of the Ministry of Agriculture, and surveying equipment to the Lands and Surveys Department of the Ministry of Housing improving capacity for local monitoring and data collection. The second phase of the project addresses development of local area plans, review of Environmental Impact Assessment Guidelines, watershed management activities in two locations (Cumberland and Perseverance) and short to medium term GIS training.

# Data Collection Process

Score cards were submitted to various stakeholders for their completion. Notwithstanding, the responses from the various sectors were low. In this vein, flexibility was employed. Accordingly, a monitoring and reporting workshop was convened on August 7th 2018, following an extensive delay in the formalization process with the multilateral partner of the PPCR, the World Bank. The objectives of the Workshop were to:

1. Select, discuss and validate PPCR indicator scores;
2. Build awareness and exchange knowledge on PPCR and related activities across sectors, including sharing successes, implementation strategies and challenges; and
3. Discuss and determine opportunities for climate change coordination mechanisms.

At this workshop, stakeholders convened in their various sector groupings. In each group, participants answered a number of questions listed in Appendix 1. After answering the questions, participants used the responses as a guide to complete the scoring for their respective sectors.

Figure : PPCR Scoring and Reporting Process 2018

The scoring criteria were developed by a two-member team in 2014 and revised in 2015 on consultation with stakeholders. Development and subsequent revisions of the criteria was based on discussions *on where St. Vincent and the Grenadines would like to be, ultimately, on each item,* and *what the likely stages or milestones are, en route to those destinations.* (Score criteria are in Appendices 1-3).



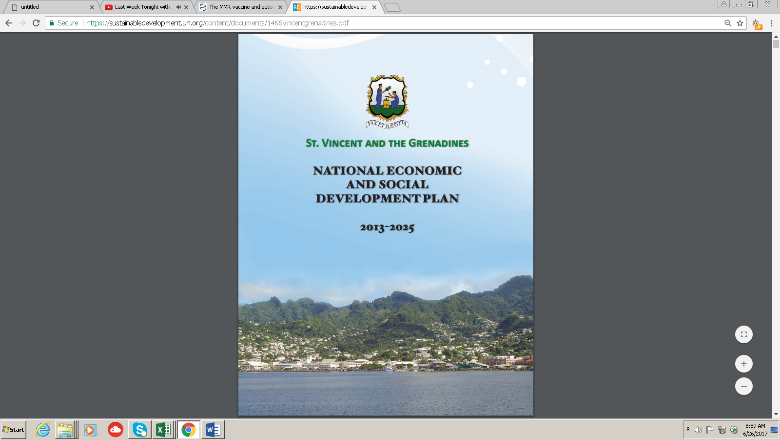
Participants PPCR scoring Workshop 2018

# Indicator One: Degree of integration of climate change in national and sector planning

Progress on Indicator one moved from an average score of 65.0 percent in 2017 to 67.3 percent in 2018. This moderate increase in score can be attributed to slow progress on PPCR activities geared towards mainstreaming climate change (development of planning documents with clearly identifiable climate resilient strategies etc.). Progress has also been slow in getting plans beyond draft stages, although tenets of these plans are being implemented. On the upside, in most sectors, responsibility has been assigned to integrate climate resilience planning into sectoral and national planning. Similarly, investments and programmes exists to implement climate change resiliency planning into National and Sectoral planning.

Across the six (6) sectors, Land Management, Coastal Zone Management and Water Resource Management have implemented climate screening tools. Training was conducted across all sectors in the use of a specially-developed climate screening and risk management tool. An overview of sector-level developments relevant to indicator one is presented below.

## National Planning

Through funding from the PPCR, the country has commenced the process of formulating a National Climate Change Policy, strategy and Implementation Plan. The activity involves development of a policy, strategy, implementation plan and monitoring plan to address climate change in St. Vincent and the Grenadines and promote sustainable development, via a consultative process. The plan will be consistent with the National Economic and Social Development Plan (2013-2025) and give specific guidance on. One specific outcome of the activity is the *mainstreaming of climate change into development planning in St. Vincent and the Grenadines*.

On September 29, 2017, the World Bank approved extension of the Bid validity period from October 17, to December 1, 2017. A further request was made to the Bank for an additional extension to Jan 5, 2018, as the process of evaluation was not yet complete. A revised Tender Evaluation Report (TER) was submitted subsequently. To date, all of the tendering procedures have taken place. The consultancy was awarded to Canari. The consultancy begun on the second July, 2018. Canari submitted an inception report in early August 2018 and the Ministry of Finance, Economic Planning and Sustainable Development has already submitted comments. The consultancy is expected to be completed mid 2019.

The consultancy will also develop a monitoring and evaluation plan to enable identification of key lessons, outcomes, opportunities and barriers in implementation. A participatory approach will be utilsed to facilitate meaningful engagement and input from a wide range of stakeholders, including typically underrepresented groups from civil society and the private sector in addition to widespread public sector consultations.

There is currently no formal coordination mechanism related to climate change in St. Vincent and the Grenadines. [Steering committees are established as needed by each project.] Development of the policy on climate change is expected to address a national coordination mechanism on climate change as part of the process. Other planning documents underway are a National Appropriate Mitigation Action for the energy and transportation sectors and a National Adaptation Plan financed by the Japan-Caribbean Climate Change Partnership (JCCCP).

## Coastal Zone Management

No coastal zone management plan were developed for the sector. Several studies have been completed on sections of the coast recommending that data be collected before proceeding to an Integrated Coastal Zone Management Plan. The RDVRP is currently negotiating purchase and deployment of equipment to collect wave and current data in SPCR pilot areas (Georgetown, Arnos Vale and Georgetown). A model OECS Coastal Zone Manangement Policy has been completed but has not yet been adopted by SVG.

Notwithstanding, the coastal zone management thrust has been strengthened by a number of initiatives that are external to the PPCR. Together they help to build resiliency to climate change in the sector. These initiates include:

* Coastal Protection for Climate Change Adaptation. This is an effort supported by the CCCCC, KFW and the International Union for the Conservation of Nature (IUCN).
* The OECS – Global Climate Change Alliance
* GEF – Small Grants Program (SGP) that enabled, for instance, the dissemination of water tanks in Union Island.
* Caribbean Aqua-Terrestrial Solutions (CATS). Through this project, a Management plan was crafted for Marine Protected Areas (MPAs).
* AUS AID – Reef Guardina Program
* USAID – Caribbean Marine Biodiversity Program
* Caribbean Biodiversity Fund (CBF) – This fund supported the installation of the St. Vincent and the Grenadines Conservation Fund (SVGCF). The SVGCF was established as a Not For Profit Company formed under the Companies Act of Saint Vincent and the Grenadines. The Fund is intended to provide a sustainable flow of funds to support the long-term management and expansion of Saint Vincent and the Grenadines National System of Protected Areas and other activities that contribute substantially to the conservation, protection and maintenance of biodiversity in Saint Vincent and the Grenadines. It will be supported in part by the Caribbean Biodiversity Fund (CBF), which will generate annual funding from investment returns that will be channeled through the Fund. The design of the Fund is sufficiently flexible to permit windows for future funding streams. The Fund will administer a grant-making program with the funds available to it from various sources to support priority conservation in Saint Vincent and the Grenadines, specifically those projects that support the long-term management and expansion of Saint Vincent and the Grenadines areas of land and/or sea which are specifically dedicated to the sustainable use of resources, protection and maintenance of biological diversity and natural resources and other activities that contribute substantially to the conservation, protection and maintenance of biodiversity as identified after consultations with stakeholders.
* CROP – Caribbean Regional Ocean scape Project (e.g Marine Spatial Plans etc)

## Disaster Management

The National Emergency Management Office (NEMO) was established in January of 2002 to coordinate the use of all available resources (local, regional, and international) to ensure that Vincentians are able to prepare for, mitigate and respond to disasters in the shortest possible time. Its mandate includes disaster preparedness through community sensitization and investments in physical and technical infrastructure.

## Nemo’s management of the Sector is guided by three (3) plans:

* National disaster plan.
* CDM plant strategy
* National emergency management act of 2016

NEMO is working to implement strategies in its plans. Among activities undertaken during 2017 were:

* Capacity building in schools and community in disaster management
* Development of a national damage assessment plan and policy with support from CDEMA
* Completion of two (2) satellite warehouses: Magum and Rose Hall.

During the 2017 reporting year, a number of other projects were undertaken in the sector with the aim of strengthening the disaster risk management thrust. These projects include:

* Retrofitting of emergency shelters: Dorsetshire Hill, Union Island Learning Resource Centre.
* Emergency communication project
* Curriculum review project
* Belmont slope stabilization project
* Tsunami small project for Rose Place, Un ion Island community
* Commit Volcano readiness project/CDB/SRC/NEMO
* Damage assessment project
* Photovoltaic micro grid – PACES project, promoting clean energy services in SVG – GEF/UNDP
* River Defences at North Union, Dickson, O’Brien’s Valley – Karotel
* Public education awareness
  + All hazards year round focusing on different hazard and different periods.
  + Early learning system.
  + Community mobilization projects
  + CAP common alerting protocol programme – early warning systems.
  + National economic and social development plan 2013 -2025
  + CDM-Policy and strategy

In spite of these undertakings, there is need for greater collaboration among stakeholders. Collaboration should be enhanced in different areas such as planning, project implementation and data sharing. As it relates to data, the sector does not have a central data repository system. This is critical in disaster risk management and climate risk resiliency planning.

The PPCR presented a number of opportunities to strengthen the sector. This included the sensitization and dissemination of vulnerability education among the populace. The programme was also able to mainstream mitigative and adaptation planning into the sectoral planning. Training was also conducted in Meteorology, Geographic information systems and Hydrology. The PPCR also strengthened the Early Warning systems and provided equipment for alert systems.

Screening for climate risks in done periodically using CCORAL, which is an online risk assessment tool developed by the Caribbean Community Climate Change Centre (CCCCC). Moreover, Environmental and Social Assessments are done to assess climate risk vulnerability, particularly from World Bank supported projects.

## Land Management

Under RDVRP, the Ministry of Housing, Informal Human Settlements, Lands and Physical Planning commenced work on a National Physical development Plan. It uses elements of the building codes to keep structures safe, using an 8 stage inspection process:

1. Lining out site
2. Foundation
3. Structural Massing
4. Floor Slab
5. Ring Beam
6. Roofing
7. Finishing
8. Completion

Concrete steps are in place toward the development of a National Physical Development plan. In 2014 a methodological framework was completed by consultant Steve Kemp for the development of a National Physical Development plan. RDVRP implementation team commenced the procurement process for services to complete the plan (2017).

Besides the National Physical Development Plan as the main planning document, other planning and regulatory documents are were prepared that address climate resilience. These include:

1. land-use zoning plans for the PPCR pilot areas (Union Island, Georgetown and Arnos Vale) which are being developed to incorporate climate resilience;
2. building codes which are being revised regionally through the OECS Secretariat to be more responsive to environmental concerns and resistant to natural disasters;
3. Environmental Impact Assessment (EIA) guidelines which set out the process for submission and approval of EIA in development have been drafted and are before the Attorney General;

## A number of lessons emerged during the planning and implementing climate resiliency programmes in SVG. Some of these can be summarized as follows:

1. Proper oversight is needed during project implementation;
2. Timely reporting of issues is needed;
3. Buy-in/stakeholder involvement is needed during project planning and implementation;
4. Responsiveness to dynamic environment is needed.

Notwithstanding, the PPCR brought about a number of Opportunities. There were opportunities for capacity building. For instance, Training was conducted through work along with consultants. There were also opportunities to replicate methodologies from other countries. The PPCR also aided in the transfer of technologies for more advanced societies. Through the learning of best practices, stakeholders were able to assess alternatives to hitherto bothersome issues.

Complementing the PPCR, the Local Area Plans design, enabled a consultant to work with staff of the Ministry of Housing, Informal Human Settlements, Lands and Physical Planning to identify appropriate climate change adaptation measures. Training is being conducted on assessments for the revised building codes. Additionally, the thrust towards clean energy has aided in capacity development in mainstreaming climate change.

Screening is routinely done in the Land Management sector. The Environmental Impact Assessment (EIA) process identifies climate risks in projects and recommends mitigative measures to address them. Notwithstanding, inadequate financing to finance these measures continue to be an issue.

## Water Resource Management

There is no single board or commission that manages water resources in St. Vincent and the Grenadines. However, through the Integrated Forestry Management Project, Fresh Water Resources are managed by various entities including, St. Vincent Electricity Services ltd. (VINLEC) for hydro-electricity generation, The Forestry Department of the Ministry of Agriculture, Forestry and Fisheries and the Central Water and Sewage Authority (CWSA) for the provision of potable water.

The later is the main agency involved in the sector. Throughout the 2017 reporting year, they have embarked on a number of initiatives aimed at building climate resiliency in the sector. These include:

1. The employment of gabion baskets to stabilize river banks at Montreal water storage facility;
2. Improvement in pipe materials, shifting away from traditional galvanize and iron and moving more towards high quality polyethylene pipe material. This material has higher durability, flexibility and can improve installation speeds and longevity;
3. Improvement in storage: proposed storage and tank facility at Sandy Bay. The CWSA has also completed a 500,000 gallon storage tank at Belle Isle;
4. Shifting of pipeline from vulnerable areas to less vulnerable areas along the Dallaway transmission path;
5. Overall improvement in distribution network through SVG to facilitate and improve supply demand;
6. Exploration of alternative water supply intakes, which included the ground water supply at Overland and Buccament and surface water at Francois and Fenton;
7. Monitoring of water and storage through the use of scalar monitoring devices at Majorca, Dallaway, Great House, Montrose, Jennings and Rose Hall tanks;
8. Improvement in real time data base on vulnerability indicators;
9. Monitoring of water resources in the grenadines;
10. Structural and operational storage plans for 2018 to 2025.

Climate risk screening continues to be a regular component of CWSA’s operations. The agency take this a bit further, by ensuring that climate changes resiliency planning is mainstreamed into its sectoral planning. The agency also collaborates with other agencies in intersectoral efforts such as the PPCR. Throughout these efforts, a number of lessons came to the fore. These include:

1. The realization that it is essential to have proper site selection for hydrometeorology equipment and pipelines;
2. Cognizance that it is important to be proactive to water quality; closer monitoring of the scalar system is required; and
3. The understanding that households and business should obtain more water storage tanks to facilitate a sustainable supply of water in the event of an adverse climatological event.

The PPCR also afforded numerous opportunities. These include:

1. The enhancement of Institutional capacity through training and equipment; Capacity was strengthened through the training of technicians in hydrology and GIS data. There was also improved monitoring of climate data;
2. Improvement of the distribution network and water quality to the customers;
3. The bolstering of stakeholder partnership, partnership and sensitization, resulting in a more informed public;
4. Improvement in the national planning and design opportunities. The PPCR programme augmented river and rainfall collection information systems.

# Indicator Two: Evidence of strengthened government capacity and coordination mechanism to mainstream climate resilience

Progress on indicator two (2) improved from 59.2 percent to 67.5 percent as incentives grew that augmented the country’s level of climate change resiliency. Moreover, In a number of the sectors (National Planning, Coastal resources and Agriculture and Forestry), there was growth in the number of experts available to aid in climate risk management and resiliency planning and implementation. Notwithstanding, progress on the establishment and utilization of coordinating mechanisms to enhance CC resiliency remains slow. An overview of sector-level developments relevant to indicator one is presented below.

## National Planning

Approximately twenty-five (25) government officials were trained by the Caribbean Community Climate Change Centre (CCCCC) in 2016 in the use of a Caribbean Climate Online Risk Adaptation Tool (CCORAL). The tool, available online, was uniquely developed for Caribbean decision-makers. One overarching objective of CCORAL as stated by CCCCC is to “*embed considerations of climate change across the Caribbean, through the development of a regional approach to risk management and the creation of a risk management ethos in decision making”.* A second phase of the CCORAL training involves sensitization of policymakers. During 2017, these participants were able to conduct research using the tool to screen various sectors for climate risks. The assessments scrutinized the development planning process, the budgetary process as well as other systemic pillars of government.

## Water Resource management

The Water Resource Management Unit (WRMU) of the Central Water and Sewerage Authority (CWSA) maintains a hydrological database and provides data and information to government ministries, non-government institutions and students. The Unit is involved in assessing the status and overall management of water resources in St. Vincent & the Grenadines (SVG) through monitoring hydrological and meteorological parameters in the upper and lower watersheds. Hydrological Parameters measured include surface runoff, stream flow, ground water, and precipitation. The unit collects, processes, manages, validates and analyzes these hydrological and meteorological data. Additionally, there was also an establishment of a climate resilience and Monitoring committee with further emphasis on emergency management. Collectively, all work together to ensure that the requisite data is available to enable climate resiliency planning.

# Indicator 3: Quality of and extent to which climate responsive instruments/investment models are developed and tested

A climate responsive instrument or investment models is one that incorporates climate variability and climate change considerations or can be applied to enhance the climate resilience of people, products, systems or services. Examples include technologies or infrastructure investments, data analytical work or technical studies, public awareness platforms and financial instruments. Several climate responsive instruments are being developed by the PPCR.

## Component 1: Prevention and Adaptation Investments

This component is designed to reduce physical vulnerability and limit the fiscal shock caused by adverse natural events. Activities include (a) retrofitting and rehabilitation of selected public buildings and emergency shelters and construction of select satellite warehouses; (b) rehabilitation of select transportation infrastructure; and (c) rehabilitation of select bridges, slope stabilization and related support studies.

### Retrofitting of Public Buildings

Up to 2017, one satellite warehouse was constructed while 4 were in progress. The satellite warehouses are designed to increase localized capacity to respond to a disaster event. The warehouses will cater equally to men and women in communities affected by disaster. Works on these remain four (4) shelters should be complete by the end of 2018.

The programe also sought to refurbish three (3) emergency shelters. By the end of 2017, two emergency shelter was completed. Works on refurbishing the last, Kingstown, will commence in the later portions of 2018. These shelters have incorporated needs of males and females into their design and implementation with gender-specific bathroom. Shelter management plans will also developed with consideration for vulnerable groups such as the physically challenged, low-income groups, elderly and female-headed households.

### Rehabilitation and Risk Reduction of Transportation Infrastructure

In this component several bridges and river crossings will be rehabilitated to reduce risk to disaster and slopes stabilized to protect homes and transportation infrastructure. By the end of 2017, pre-implementation works were administered on the rehabilitation of bridges, rivers and fords (6 sites). A recommendation was sent to the Central Supplies Tenders’ Board to award contract for works at Green Hill and Fire Burn roads. Gender needs are not considered in the design of transportation infrastructure however, World Bank Operational Policies are adhered. Design and implementation of these tools are geared towards minimizing negative impact to community.

Major land slippage in ginger village

Slope stabilization works occurred at English Gutter and German Gutter as planned. In addition, the South River Bridge in Kingstown was rebuilt. After receiving safeguards clearance from the World Bank on August 25, 2017, works on the Ginger Village stabilization began during October, 2017. Works on the site is expected to be complete by October 2018. Upon completion, the project is expected to facilitate reductions in vehicle operating costs for a notable segment of the country’s population. It is also expected to positively benefit the farming community in the areas, an occupation with a notable concentration of women.

### Technical Studies

The scope of this activity is for study and design of road realignment in Bequia. This activity near complete but at test phase the community was strongly opposed to road design. An alternative road design will be used to minimize adverse impact on the community. Notwithstanding, this matter is not yet resolved.

## Component 2: Regional Platform for Hazard and Risk Evaluation and Applications for Improved Decision Making

This component is aimed at building regional capacity for assessment of natural risks and the integration of such assessment into policy and decision-making processes.

### 2.1 Regional collaboration for natural and climate change analysis and disaster management

Under this component 6 officers from the Meteorological Department (Airports) completed short-term training at Caribbean Institute of Meteorology and Hydrology in Barbados, and another is currently undergoing training. Two officers from the Central Water and Sewerage Authority (CWSA) completed training in Hydrology and one (1) completed training in Geographical Information Systems (GIS) and the University of the West Indies, St. Augustine campus.

In addition, a consultant a consultant was hired to facilitate the development of an Emergency Communication Network. In addition the procurement process begun in 2017 for the creation of a National Physical Development Plan. The procurement process also begun on the development of a National Climate Change Adaptation Policy and also for a National Curriculum in Climate Change Adaptation for the Nation’s schools.

2.2 Regional Collaboration for Watershed Management

This component includes a scale-up of river defense activities from component 1 applied to Carriere and Buccament, and assessments and interventions in the in the Arnos Vale watershed. Activities at Buccament and Carriere are aimed at reducing the risk of community residents to flooding. Hydrological and hydraulic studies have been completed. The scope of this activity may be reduced on account of budget deficits.

### 2.3 Regional Collaboration for Coastal Protection

This sub-project is designed to pilot a combination of hard and soft measures to reduce the risk to life and critical public infrastructure in a vulnerable coastal setting. Lessons learned from this pilot would be captured and published with the participation of a regional technical agency. Coastal erosion were investigated at these sites and suitable measures proposed. Interventions are expected to protect homes and infrastructure in the area of Dark View, Georgetown and San Souci.

Prior to 2017, Feasibility studies and Environmental Assessments were completed for the sites and engineering options presented. A portion of the study at Dark View was funded by the Caribbean Development Bank (CDB). During 2017, a contract was awarded to a firm to do the design works for these sites. Additionally, Resettlement Action Plans (RAPs) were prepared. The Dark View site, however, does not have People Affected by the Project (PAPs). Finally, a contract was awarded for design and supervision of the Rehabilitation of the Chateaubelair Jetty.

# Limitations

The scores, though intended to reflect sectoral and natural conditions, and though designed to add objectivity to the Monitoring and reporting process, may still contain some levels as subjectivity, as the opinions of few are used to represent overall conditions. Nonetheless, the PPCR indicator scoring process has proven instructive in generating discussions and determining milestones for St. Vincent and the Grenadines. In one are two instances, however, responders indicated statuses or levels of progress that were not factored into the scoring criteria. These conditions were seen as progress to the hitherto. This provided fruitful discussions in the way forward. Accordingly, revisions to the criteria may be necessary. This may enable other PPCR countries at lower stages of implementation to learn from our experiences.

# Conclusion

PPCR indicator scores continue to show moderate improvement in St. Vincent and the Grenadines. Slow implementation of project activities has resulted in a lag in scores. Slow movement at higher levels of the table suggests that some activities are maturing. Additionally, synergies have continued with other projects in climate resilience, further leading to more efficient use of resources.

In most sectors, responsibility has been assigned to integrate climate resilience planning into sectoral and national planning. Similarly, investments and programmes exists to implement climate change resiliency planning into National and Sectoral planning. There was also growth in the number of experts available to aid in climate risk management and resiliency planning and implementation. Nonetheless, progress was slow as it relates to the establishment of a coordinating mechanism to foster the climate change resiliency planning. Some respondents opined that a mechanism exists, but most feel that it has not been officially or undisputedly sanctioned as the official body for building resilience to climate change.

Nevertheless, PPCR implementation during 2018 is expected to accelerate the development of a National Climate Change Policy and Implementation Strategy. This activity is the best opportunity so far for formation of a coordination mechanism on climate change. Efforts are also apace to incorporate climate change adaptation into the National schools curricula.

# Appendix 1: Group Questions at PPCR Scoring Workshop

Participants were asked to discuss the following questions:

1. List and outline other projects/programmes that aid in building climate resiliency in SVG;
2. Identify and discuss how climate resiliency planning is being integrated into national and sector planning.
3. Detail lessons learnt in planning and implementing climate resiliency programmes in SVG;
4. Discuss opportunities brought about by the PPCR programmes;
5. Discuss if and how climate change adaptation policies are being implemented in SVG
6. Discuss if responsibility is being assigned to coordinate climate resilience into planning. (has an institution been assigned to coordinate the integration of climate resilience into planning
7. Does your sector routinely screen for climate risks? Identify the procedures and discussed how they are used.
8. Discuss ways in which capacity was strengthen Government capacity to mainstream climate change.
9. Discuss the challenges and opportunities in strengthening and to strengthen government’s capacity to mainstream climate change
10. Use the answers provided for questions 1-9 to complete the attached score cards.

# Appendix 2: Core Indicator One Score Criteria

# Appendix 3: Core Indicator Two Score Criteria

# Appendix 4: Core Indicators Traffic Light Table

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | National Planning | | | | | | | | |
|  | Approved plan exists | Climate resilience strategies | Responsibility assigned | Investments and programs | Screening | Data for climate resilience available? | climate change expertise available | Incentives and legislative policies address climate resilience? | Participation with coordination mechanism? |
| Baseline | 2 | 2 | 5 | 5 | 1 | 5 | 5 | 3 | 8 |
| 2014 | 4 | 6 | 4 | 6 | 3 | 7 | 5 | 4 | 8 |
| 2015 | 5 | 8 | 8 | 8 | 3 | 7 | 5 | 4 | 8 |
| 2016 | 5 | 8 | 8 | 8 | 4 | 7 | 6 | 4 | 8 |
| **2017** | 5 | 8 | 8 | 9 | 5 | 8 | 6 | 4 | 8 |
| **2018** | 5 | 9 | 8 | 9 | 5 | 8 | 8 | 5 | 8 |
|  |  |  |  |  |  |  |  |  |  |
|  | Coastal and Marine Resources/Coastal Zone Management | | | | | | | | |
|  | Approved climate change plan exists | Climate resilience strategies embedded in the planning documents | Responsibility assigned to integrate climate resilience planning | Investments and programs exist | Screen for climate risks | Data for climate resilience available? | climate change expertise available | Incentives and legislative policies address climate resilience? | Participation with coordination mechanism? |
| Baseline | 2 | 2 | 2 | 3 | 2 | 7 | 3 | 2 | 2 |
| 2014 | 2 | 2 | 2 | 3 | 3 | 7 | 4 | 4 | 4 |
| 2015 | 3 | 2 | 6 | 7 | 4 | 7 | 5 | 0 | 4 |
| 2016 | 5 | 4 | 6 | 8 | 5 | 8 | 6 | 4 | 4 |
| **2017** | 4 | 4 | 6 | 8 | 5 | 8 | 6 | 4 | 4 |
| 2018 | 5 | 5 | 6 | 9 | 6 | 9 | 7 | 5 | 4 |
|  |  |  |  |  |  |  |  |  |  |
|  | Water | | | | | | | | |
|  | Approved climate change plan exists | Climate resilience strategies embedded in the planning documents | Responsibility assigned to integrate climate resilience planning | Investments and programs exist | Screen for climate risks | Data for climate resilience available? | climate change expertise available | Incentives and legislative policies address climate resilience? | Participation with coordination mechanism? |
| Baseline | 1 | 1 | 3 | 2 | 1 | 7 | 3 | 2 | 2 |
| 2014 | 5 | 2 | 8 | 6 | 3 | 5 | 5 | 6 | 2 |
| 2015 | 5 | 5 | 8 | 7 | 3 | 5 | 5 | 6 | 2 |
| 2016 | 6 | 5 | 8 | 7 | 4 | 5 | 5 | 6 | 5 |
| **2017** | 8 | 8 | 8 | 9 | 7 | 7 | 7 | 5 | 5 |
| **2018** | 8 | 8 | 8 | 9 | 7 | 8 | 7 | 8 | 8 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Land Management | | | | | | | | | | | | | | | | | | | | | | | | |
| Approved climate change plan exists | Climate resilience strategies embedded in the planning documents | | Responsibility assigned to integrate climate resilience planning | | | Investments and programs exist | | | Screen for climate risks | | | | Data for climate resilience available? | | | | climate change expertise available | | | Incentives and legislative policies address climate resilience? | | | | Participation with coordination mechanism? |
| 2 | 2 | | 6 | | | 5 | | | 2 | | | | 7 | | | | 3 | | | 2 | | | | 5 |
| 3 | 4 | | 7 | | | 6 | | | 5 | | | | 7 | | | | 5 | | | 4 | | | | 8 |
| 3 | 4 | | 7 | | | 7 | | | 5 | | | | 7 | | | | 5 | | | 4 | | | | 8 |
| 3 | 4 | | 8 | | | 8 | | | 5 | | | | 8 | | | | 7 | | | 6 | | | | 9 |
| 3 | 5 | | 9 | | | 8 | | | 9 | | | | 8 | | | | 7 | | | 5 | | | | 8 |
| 3 | 5 | | 9 | | | 8 | | | 9 | | | | 8 | | | | 7 | | | 5 | | | | 8 |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| Agriculture and Forestry | | | | | | | | | | | | | | | | | | | | | | | | |
| Approved climate change plan exists | | Climate resilience strategies embedded in the planning documents | | | Responsibility assigned to integrate climate resilience planning | | | Investments and programs exist | | | Screen for climate risks | | | Data for climate resilience available? | | climate change expertise available | | | Incentives and legislative policies address climate resilience? | | | Participation with coordination mechanism? | | |
| 2 | | 2 | | | 3 | | | 2 | | | 4 | | | 7 | | 3 | | | 2 | | | 2 | | |
| 3 | | 2 | | | 5 | | | 6 | | | 5 | | | 7 | | 4 | | | 3 | | | 3 | | |
| 3 | | 2 | | | 5 | | | 6 | | | 5 | | | 7 | | 4 | | | 3 | | | 3 | | |
| 3 | | 3 | | | 5 | | | 8 | | | 2 | | | 7 | | 4 | | | 4 | | | 3 | | |
| 5 | | 5 | | | 6 | | | 8 | | | 2 | | | 6 | | 4 | | | 4 | | | 3 | | |
| 5 | | 5 | | | 6 | | | 9 | | | 3 | | | 6 | | 7 | | | 4 | | | 4 | | |
|  | |  | |  |  | |  |  | |  |  |  | |  |  |  | |  |  | |  |  |  | |
| Disaster Management | | | | | | | | | | | | | | | | | | | | | | | | |
| Approved climate change plan exists | | Climate resilience strategies embedded in the planning documents | | | Responsibility assigned to integrate climate resilience planning | | | Investments and programs exist | | | Screen for climate risks | | | Data for climate resilience available? | | climate change expertise available | | | Incentives and legislative policies address climate resilience? | | | Participation with coordination mechanism? | | |
| 4 | | 4 | | | 6 | | | 5 | | | 3 | | | 6 | | 5 | | | 0 | | | 5 | | |
| 7 | | 2 | | | 8 | | | 8 | | | 4 | | | 8 | | 5 | | | 2 | | | 8 | | |
| 7 | | 7 | | | 8 | | | 8 | | | 5 | | | 8 | | 5 | | | 2 | | | 8 | | |
| 8 | | 8 | | | 8 | | | 8 | | | 8 | | | 8 | | 7 | | | 7 | | | 8 | | |
| 5 | | 7 | | | 9 | | | 7 | | | 5 | | | 7 | | 7 | | | 3 | | | 8 | | |
| 5 | | 7 | | | 9 | | | 7 | | | 5 | | | 7 | | 7 | | | 5 | | | 8 | | |

# Appendix 5: List of Stakeholders

Table 1. List of Scorers and Work Shop Participants

|  |  |  |
| --- | --- | --- |
| Name | Position | Agency/ Community |
| Trelson Mapp | PPCR Focal Point Representative | Ministry of Economic Planning |
| Grace Warren | Project Officer | Ministry of Economic Planning |
| Kris Isaac | Senior Fisheries Officer | Fisheries Division, Ministry of Agriculture |
| Fitzgerald Providence | Director of Forestry | Forestry Division, Ministry of Agriculture |
| Sharika Mandeville | Engineer | Min. Transportation |
| Nikolai Lewis | Engineer | Min. Transportation |
| Houlda Peters | Training Officer | National Emergency Management Organization |
| Mrs. Abena White | Climate Change / National Reserve Management Officer | National Parks Rivers and Beaches Authority |
| Danroy Ballantyne | Water Resource Officer | Central Water and Sewerage Authority |
| Sherma Adams | Community Rep | Union Island |
| Veronica John | Community Rep | Georgetown |
| Orisha Joseph | Project Officer | Sustainable Grenadines Inc |

Table 2. Other Stakeholders Consulted

|  |  |  |
| --- | --- | --- |
| Name | Position/Speciality | Agency |
| Anthony Bowman | Chief Technical Officer | Ministry of Housing, Informal Human Settlements, land and Physical Planning |
| Bradley | Project Coordinator | Global Climate Fund |
| Shenico Sutherland | Procurement Specialist | Ministry of Finance and Economic Planning |
|  |  |  |

1. CIF, Pilot Programme for Climate Resilience Fact Sheet, June 2016. [↑](#footnote-ref-1)